The ability to understand, to conceive and to reproduce explanatory actions as such, should be denominated signal orientation.

2. "The region of the brain called the speech field is to be considered as the center for signal orientation, and serves not alone audible speech, but accomplishes the binding together of all perceptive and reactive capabilities of all sense systems, in so far as these have relation to the single biological tendency to explanation.

3. "The common centralization of all possibilities of explanation causes the disturbance of gesture speech in aphasia from extended focal lesions.

4. "When in severe aphasias there are disturbances of gesture language, the disturbances of audible speech, and those of gesture language, appear as coördinated symptoms of focal disease.

5. "The more extended injuries of the center for signal orientation alter all psychical qualities, so far as these are related to the faculty of understanding.

6. "The self perception of aphasic symptoms is dependent especially upon the conceptibility of the components of the understanding.

7. "It is possible that the center for signal orientation is to be considered as the cortical representation of a subcortical apparatus, from which the impulse for the automatic actions of imitation of stimuli is set off, and that it may be the function of the cortical center through its intimate relations with the rest of the cortex to differentiate from these automatic actions signal orientation as a component of general orientation."

2. *The Connection Between Aphasia and Insanity.*—Aphasia and insanity may be combined in three ways: 1. Both are symptoms of a common cause. 2. The aphasia is a result of the mental disease. 3. The psychosis is a result of the preceding aphasia. The author discusses these relations at length, and gives full histories of two cases, illustrating the third manner of relationship. In each of these cases (both males and alcoholic) an apoplectic stroke had, as a result, the production of aphasia of mixed character, but chiefly sensory, to which hallucinations of sight and hearing, and possibly also of taste and smell, were added after its persistence for a considerable time, with the development of ideas of persecution, leading to the production of a paranoid state with increasing weak-mindedness. The author, after studying these cases, and reviewing the literature of the subject at some length, comes to the conclusion that this paranoid state originated psychologically from the change in consciousness of self by reason of losing touch with the outer world on account of loss of ability to understand and to express himself on the part of the patient, and might have as its anatomical basis changes proceeding secondarily from the focal lesion, or possibly from some obscure toxic influence connected with neurone degeneration. ALLEN (Trenton.)

JOURNAL OF MENTAL SCIENCE

(Vol. L., 1904, July.)

1. Quantitative and Qualitative Leucocyte Counts in Various Forms of Mental Disease. BRUCE and PEEBLES.
2. Notes on Social Causes of Alcoholism. SULLIVAN.
3. General Paralysis and Crime. BAKER.
4. Acute Hallucinatory Insanity of Traumatic Origin. DRAPES.

1. *Leucocyte Counts in Mental Disease.*—This article embodies the result of careful and laborious and extended investigations, and appears to us to be most trustworthy. They take as a normal percentage in control the following: Polymorphonuclear, men, 70 per cent.; women, 60 per cent. Small lymphocytes, men, 20.5 per cent.; women, 30.5 per cent. Large lymphocytes, 8 per cent.; women, 7.5 per cent. Eosinophiles, 1.5 per cent.; women, 2.0 per cent. Mastzellen, .5 per cent. to 1 per cent. Acute melan-

cholia—Here there was never a leucocytosis. If in an early stage of melancholia a hyperleucocytosis was observed they made a guarded prognosis. Excited melancholia—When examined early usually a high count was obtained. Polynuclear above 70 per cent.; leucocytes 11,000 to 17,000. Later on this would be respectively 80 per cent. and 20,000 to 30,000. The onset of a relapse would often be preceded by a fall to, or below the normal. With the increase in excitement there is an increased leucocytosis, as also percentage of the polynuclears. Acute continuous mania—The leucocytosis resembles that of excited melancholia, the hyperleucocytosis often persists after recovery. In cases which do not recover and become chronic the leucocytosis falls, and the percentage of polynuclears also to 50 per cent. or less. If the chronic cases eventually should recover there is a rise in both the above factors. A point of practical importance is here indicated for a low count of whites less than 10,000, and a low per cent. of the polynuclears, means a bad prognosis. The leucocytosis may be artificially raised by injecting ½ c.c. of turpentine into the flanks; this procedure has also been followed by rapid recovery. Recurring mental excitement—Folie circulaire. All the cases exhibited depression or excitement of the simple mania or melancholia forms. In the depressed, invariably, high leucocytosis, polynuclears 60-80 per cent. During beginning of excitement, fall of leucocytes, polynuclears also, to about 50 per cent. As the excitement increases a rise in both these factors was observed. Two typical cases were discharged with very high leucocytosis and high per cent of polynuclears. These observations point strongly to the fact that the depression and excitement of cases of "folie circulaire" are quite different from ordinary attacks of mania and melancholia. Cases of recurrent mania (exclusive of the alcoholic cases)—Here there is a rise of both leucocytosis and per cent. of polynuclears. The rise occurs gradually as the attack supervenes, and falls slightly as it passes off. No per cent. of polynuclears follows the general curve of the hyperleucocytosis. One of their cases suffered from severe intercurrent facial erysipelas. It showed hyperleucocytosis 28,000; per cent. of polynuclears 89. Following this illness there was a cessation of mental attacks for four months. Alcoholic insanity. No case of delirium tremens was examined, but the leucocytosis of acute continuous mania (alcoholic origin) was identical in every detail with the non-alcoholic variety. They look upon the alcohol merely as an exciting cause, breaking down the resisting power of a patient hereditarily predisposed to this type of insanity. Hebephrenia—The findings here were variable, for the most part leucocytosis 12,000 to 14,000, but often marked hyperleucocytosis, without increase of polynuclears, but an increase of large manonuclears. Only one case recovered—here the leucocytosis was never above 14,000, and fell to normal on recovery. Delusional insanity—These cases, whether of paranoia or occurring later in life, were always entirely free from hyperleucocytosis. Progressive paralysis—At the onset there was a high per cent. of polynuclears and hyperleucocytosis. During the second stage, especially if there was a febrile attack, there would be a rise. In the third stage there was generally a variable leucocytosis, 30,000 to 10,000, but usually a low per cent. of polynuclears—40 per cent. If recovery or marked remission ensued there was a return to normal figures. Epilepsy—In every case, either during or between attacks, has shown a hyperleucocytosis. Puerperal insanity—The leucocytosis does not differ from that of acute mania. Lactational insanity—shows conditions as in ordinary anemic women. Conclusions—With the exception of one variety of melancholia and all cases of delusional insanity, all types of acute mental disease present more or less the conditions of hyperleucocytosis, with persistance after recovery. Difference in the character of the corpuscles is very marked, they being large and well formed in young, strong patients, smaller and staining badly in the old or debilitated. Large lymphocytes (uncommon in healthy blood) are frequent in various forms of mental disease, but most markedly found in hebephrenia, catatonia, recurrent mania and in any case which is much debilitated.

2. *Alcoholism.*—We cannot better review this very able and interesting article than to give the writer's summary in his own words: 1. In considering the social causes of intemperance, which are by far the most important, it is necessary to distinguish two opposed types of drinking, viz.: the drinking that goes with conditions of relaxative luxury, and finds its most frequent expression in ordinary convivial drinking, and the drinking that goes with conditions of relative misery, of which bad industrial circumstances are the most considerable factor. 2. Convivial drinking may, and often does lead to drunkenness, but, at least in its pure form, does not tend very much to chronic alcoholism. Industrial drinking, on the other hand. while leading also, though less immediately, to drunkenness, tends rapidly and fatally to chronic intoxication. 3. From a statistical point of view, while chronic alcoholism always implies the existence of drunkenness, drunkenness by no means implies the existence of chronic alcoholism. In England this divergence between the two phenomena is best seen in the prosperous mining districts, which by reason of their prosperity are at once more drunken, but less alcoholic, than any other part of the country. 4. The graver social evils that are in any important degree caused by alcohol are related to the chronic intoxication, and are, therefore, mainly due to industrial drinking. 5. While educational, religious and similar influences can control the excesses of convivial drinking, they have but little action on industrial alcoholism, which can only be checked by raising the standing of living, and, in a minor degree, by such methods as restricting the facilities for obtaining alcohol during work hours, providing hygienic substitutes, and so forth.

3. *General Paralysis and Crime.*—There is a small percentage of cases where general paralytics show criminal tendencies. Some excellently recorded cases are cited to show this relationship. In such cases the crimes were committed early in the onset of the disease before the somatic symptoms had presented. The crime was associated with and was the outcome of melancholic conditions or states, and was homicidal in nature. The tendency to suicide is not marked, being probably inconsistent with the optimism and egotism so characteristic of the general paralytic. Delusions of persecution were always present in these cases. This invasion period of melancholia and persecutory mental disorder Baker views as the initial stage of a later dementia, and considers them sufficiently fixed and systematized—not fickle and inconstant—to cause resolute and purposive homicidal acts. The victims were usually the offspring of the destroyer. Baker objects to the phrase "homicidal impulse," as applied to criminal acts, impulse meaning mental force suddenly liberated, and as suddenly transformed into action. There is nothing sudden about these acts of violence. The thought of violence when it projects itself into the mind rarely leads to immediate action, but grows with the growth of insanity, and requires time for development to its full intensity. They are, indeed, usually foreseen and feared by the patient, indeed, fill him with horror, and there is a constant struggle between them and the remnant of patient's weakened volition. The affective state in such patients is usually a very gloomy one. Sexual offences Baker attributes to stimulation of the genital sense by alcohol, this agent playing always the principal part. He quotes illustrative cases where sexual offences were committed and conviction followed for crime which were later followed by typical dementia. Offences against property: The thieving propensities of the paralytics may be ascribed in great measure to reversion by a process of dissolution, to conditions similar to those of childhood, wherein the acquisitive tendencies form a prominent feature of mental activity. The instinct of acquisition is uppermost, and is not yet held in check by those higher inhibitory intellectual and volitional processes which develop later and fit the individual

into our social sphere. In the paralytic this cortical superstructure melts away under the influence of the destructive process and the inverse order of acquirement; the highest and latest developed disappearing first. Baker, in fact, thinks that general paralysis gives a replica of childhood not paralleled in any other form of insanity.

4. *Hallucinatory Insanity.*—Drapes gives an extended description of a case. It is remarkable for the evidently established connection with the trauma, and the connected character of the hallucination. They were extremely vivid and coherent and made such a strong impression that they remained fresh in the patient's memory five months after. They were as real as dreams, but occurred whilst patient was broadly awake, and again were different, in that dreams never, or rarely, incite to action, whilst here striking displays of motorial activity occurred on several occasions. Interesting, as furnishing ground for favorable prognosis, was the fact that a lucid interval was observed every day, replacing the periods of hallucinatory excitement. Drapes conjectures as to the nature of the lesion which could cause such a peculiar derangement. He excludes concussion, of which he had thought at first. There were present gravescent headache, with a certain amount of hyperacusis (this, too, in a patient who had always been slightly deaf), slight paretic phenomena early, viz.: drooping of eyelid and face and slight dragging of leg, muscular twitchings, irregular pulse and insomnia. The primary physical symptoms were followed about two to three weeks later by the mental; hence, Drapes pictures the lesion as a circumscribed meningeal inflammation which later involved, but not very deeply, the underlying cortex. Drapes further discusses most interestingly the bearing of his case upon the nature of consciousness, of personality. Human consciousness formerly was considered as a sort of essence single and individual pervading our whole being. Modern psychology postulates consciousness, the ego or personality as the sum of a vast number of separate consciousnesses, the sum of which is general consciousness. This consciousness is a reaction to outward impressions, is the outcome of objective and subjective consciousness, and instead of being changeless and undesirable is in reality never the same for any two consecutive periods of time. Each new phase of consciousness awakens memories of innumerable past states, and the new phase, more or less vivid, tends by repetition to become automatic or reflex. Drapes believes in what has been termed the stratification of the mental faculties, and with various levels are associated corresponding states of consciousness, *i. e.*, personality. The highest level holds in control subordinate or lower levels of consciousness. These conscious states become the dominant states when higher levels are rendered inoperative by lesions of various nature. There may be any number of different personalities, and for every stage of descent in the process of dissolution there is a different consciousness or personality. Sleep, healthy and dreamless sleep, is defined as sopor in all levels ordinarily attended with consciousness. "Le sommeil géneral est l'ensemble des sommeils particuliers." Dreams are the persistence of activity in one or more levels whilst the others are temporarily inactive, due to the activity of subordinate centers, relieved from the control of those above them. Hallucinations in Drapes's case were explained by the same hypothesis. The higher centers were rendered inoperative by the circumscribed meningitis, and the lower ones "let go." The vividness of the hallucinations were explained by the supposed irritative effect of the neighboring lesions. Drapes's idea of the origin of the delusions of persecution, plotting, conspiracy against life or property so common in all forms of insanity is ingenious. The mental ground work common to the race is much the same in all beings—insanity being merely a reduction from a higher to a lower level of consciousness—degradation of personality. The basic state of these delusions is fear and suspicion, dating back from long forgotten but inherited ancestral experiences accompanying human evolution. With the extinction of activity

of the higher, but more recently evolved and super-imposed cortical levels, there will be a revivification of these more primordial states. which in proportion as the control of the upper levels is removed, permits them to emerge into the foreground from the depths of our psychic life.

WOLFSTEIN (Cincinnati.)

ARCHIVES DE NEUROLOGIE

(Vol. XVIII., 1904, 'No. 105, September.)

1. Frequency and Distribution of Naevi Among the Insane. FÉRÉ and MOROUX.
2. Phobia of Inspection. HARTENBERG.
3. Dementia Præcox. Fourteenth Congress of Alienists and Neurologists of France and French Possessions, Pau, August, 1904.

1. *Naevi.*—This article discusses the condition named in the title, and is a study of the various forms as they occur in the various types of the insane. The conclusions at which they arrive show similar conditions here to those met with in sane subjects. They do not support the theory of Bouchard, that there is any connection between the occurrence of these cutaneous affections and diseases of the liver.

2. *Phobia of Inspection.*—In this contribution Hartenberg describes the phobia of inspection, especially that form which results in aversion to the exposure of the face to the public view. He describes the emotional excitement and unexplainable sensations always resulting when the sufferers have to support the fixed gaze of others. The natural consequence of this fear is to avoid as much as possible the necessity of exposing the face. Either these occasions are avoided altogether or all kinds of expedients are adopted to avoid inspection; such as covering the face with a veil, or with the hands, or standing in the shadows, or if these cannot be adopted the face is held expressionless, or some artificial expression of the countenance, or even tics are adopted. Others again will always wear blue glasses. *The basis of this phobia is timidity*, and these subjects always present the symptoms of this social infirmity, which probably arises from the fear of being found mal-formed or ridiculous, and results in an excess of *shame*. When it is confined merely to fear of inspection of the face, or even the eyes alone, Hartenberg thinks it is rather because they feel that inspection of these parts is a sort of profanation, constituting a violation of their conscience. He contrasts this phobia sharply with the phobia of blushing. The victims of this inspection phobia never blush, or if they do, are unconcerned about the blushing. It is merely the exposition of the naked face, or of the eyes, to others, which is the cause of their disquietude. The history of two very interesting cases is given, which Hartenberg considers very critical examples, of the malady. Summarizing the condition, this phobia is a morbid fear ingrafted on the mental state of timidity, similar to the phobia of blushing, but entirely distinct from the latter. It is a particular form of the class of social phobias.

3. *Dementia Præcox.*—The proceedings of the Congress were extremely interesting, but it is not possible to report on all of them in detail. The subject of Dementia Præcox was the special topic for discussion, and the disease as described by Kraepelin was presented to the Congress by Deny. Kraepelin's views were ably defended, and Deny believes that it is as distinct a form of dementia as is that of general paralysis, or senile dementia, and he considers it a morbid entity. The intellectual deficit is first manifested in an elective manner, affecting the emotional and moral side, rather than the voluntary activity, or higher intellectual faculties proper. Apathy and indifference are its earmarks; later come disorder of volition and motorial activity. Characteristic is the progressive weakening of the intellectual faculties to which is usually joined states of depression, or excitement, or confused stupor, or delirious con-